



Aalborg Universitet

**AALBORG UNIVERSITY**  
DENMARK

## **Towards Logical Analysis of Occurrence Values in Truth-Functional Independent Occurrence Logic**

Badie, Farshad; Götzsche, Hans

*Publication date:*  
2017

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*  
Badie, F., & Götzsche, H. (2017). *Towards Logical Analysis of Occurrence Values in Truth-Functional Independent Occurrence Logic*. Abstract from Logic Colloquium 2016, Leeds, United Kingdom.

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

### **Take down policy**

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

- FARSHAD BADIE & HANS GÖTZSCHE, *Towards Logical Analysis of Occurrence Values in Truth-Functional Independent Occurrence Logic*.

Center for Linguistics, Aalborg University, DENMARK.

*E-mail:* {badie-goetzsche}@id.aau.dk.

The human beings never really understood how truth could be recognised as the centrepiece of philosophy. The idea of truth vs. falsity is based on the assumption that the truth-value of statements about things beyond actual settings can, indisputably, be determined (false statements about settings are just counterfactuals).

In this discussion, we will rely on our alternative kind of logic: *Occurrence Logic* (Occ Log), which is not based on truth functionality, see [1]. The Occ Log  $z \circ > y$  expression denotes the fact that  $y$  occurs in case and only in case  $z$  occurs. Note that ' $z \circ > y$ ' does not by itself express any kind of truth-value semantics. We will see that the *Occurrences* as the main building blocks of our approach are independent from truth-values, but they are strongly dependent on the occurrence values. The fact that ' $y$  would only occur [and would only have an occurrence value] in case  $z$  occurs [and has an occurrence value]', has been represented by Occ Log expression  $z \circ > y$ . We shall stress that what is in logic often called states of affairs (including events) of the real world could be called *Local Universes* that are made of Entities and Properties. Focusing on the events  $z$  and  $y$  we can justifiably say that in case, and only in case, the local universe of  $z$  differs from the local universe of  $y$  regarding at least one but not all Entities and Properties, one of them can, potentially, be said to be a change of the other.

[1] GÖTZSCHE, HANS, *Deviational Syntactic Structures*. London / New Delhi / New York / Sydney: Bloomsbury Academic, 2013.